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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,515	09/23/2003	Dae-Ho Choo	6192.0261.D1	1451
7590 11/23/2005		EXAMINER		
McGuire Woods			TENTONI, LEO B	
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1750 Tysons Boulevard			ART UNIT	PAPER NUMBER
McLean, VA 22102-4215			1732	······

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)	
	10/667,515	CHOO ET AL.	
Office Action Summary	Examiner	Art Unit	
	Leo B. Tentoni	1732	
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet	with the correspondence add	ress
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).	NATE OF THIS COMMUN 136(a). In no event, however, may will apply and will expire SIX (6) MO e, cause the application to become	IICATION. a reply be timely filed DNTHS from the mailing date of this com ABANDONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on 04 C	October 2005.		1544 W.
2a)⊠ This action is FINAL . 2b)☐ This	s action is non-final.		
3) Since this application is in condition for allowa	•	·	nerits is
closed in accordance with the practice under I	Ex parte Quayle, 1935 C.	D. 11, 453 O.G. 213.	
Disposition of Claims			
 4) Claim(s) 8-13 is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) Claim(s) is/are allowed. 6) Claim(s) 8-13 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or 	wn from consideration.		
Application Papers		r	
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11.	cepted or b) objected to drawing(s) be held in abeyontion is required if the drawing	ance. See 37 CFR 1.85(a). g(s) is objected to. See 37 CFF	` ,
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	ts have been received. ts have been received in prity documents have bee u (PCT Rule 17.2(a)).	Application No In received in this National S	itage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	Paper No	v Summary (PTO-413) o(s)/Mail Date i Informal Patent Application (PTO- 	152)

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Chui (U.S. Patent 3,930,825 A).

Chui (see the entire document, in particular, col. 1, line 47 to col. 3, line 46) teaches an apparatus for cutting a non-metallic substrate including a first laser beam generating means and a second laser beam generating means, wherein the apparatus cuts the non-metallic substrate without a cooling device (the substrate, flat glass, is discharged from a glass forming apparatus and is cut while hot).

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

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the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

 Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 5. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chui (U.S. Patent 3,930,825 A).

Chui (see the entire document, in particular, col. 1, line 47 to col. 3, line 46) teaches an apparatus for cutting a non-metallic substrate including a first laser beam generating means and a second laser beam generating means, and the remaining claimed features would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Chui principally in order to cut a desired substrate.

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6. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xuan et al (U.S. Patent 6,744,009 B1).

Xuan et al (see the entire document, in particular, col. 8, line 37 to col. 12, line 20) teach an apparatus for cutting a non-metallic substrate including a first laser beam generating means and a second laser beam generating means, wherein the apparatus cuts the non-metallic substrate with the use of a cooling device; however, the omission of an element (in this case, a cooling device) and its function (in this case, cooling of a substrate) would have been obvious to one of ordinary skill in the art at the time the invention was made if the function of the element is not desired (in this case, the omission of the cooling device would certainly simplify the apparatus and reduce the capital and operational cost of the apparatus) (see MPEP 2144.04).

7. Claims 8, 9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admissions in the specification on page 5, lines 1-18 for the reasons of record and with further comment below.

The omission of an element (in this case, a cooling device) and its function (in this case, cooling of a substrate) would have been obvious to one of ordinary skill in the art at the time the invention was made if the function of the element is

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not desired (in this case, the omission of the cooling device would certainly simplify the apparatus and reduce the capital and operational cost of the apparatus) (see MPEP 2144.04).

- 8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admissions in the specification on page 5, lines 1-18 in combination with Kitajima et al (U.S. Patent 6,320,158) for the reasons of record.
- 9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admissions in the specification on page 5, lines 1-18 in combination with Boyle (U.S. Patent 6,841,482) for the reasons of record.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Voqel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is

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shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 8, 12 and 13 are rejected on the ground of nonstatutory obviousness-type double patenting being as unpatentable over claims 11 and 14 of U.S. Patent No. 6,541,730 in view of Stevens (U.S. Patent 5,622,540) for the reasons of The omission of an element (in this case, a cooling record. device) and its function (in this case, cooling of a substrate) would have been obvious to one of ordinary skill in the art at the time the invention was made if the function of the element is not desired (in this case, the omission of the cooling device would certainly simplify the apparatus and reduce the capital and operational cost of the apparatus) (see MPEP 2144.04).

Response to Arguments

12. Applicant's arguments with respect to claims 8-13 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues (pages 5-8) that none of the cited references teach an apparatus for cutting a non-metallic substrate including an apparatus which does not have a cooling device. Examiner responds that the omission of an element (in

this case, a cooling device) and its function (in this case, cooling of a substrate) would have been obvious to one of ordinary skill in the art at the time the invention was made if the function of the element is not desired (in this case, the omission of the cooling device would certainly simplify the apparatus and reduce the capital and operational cost of the apparatus) (see MPEP 2144.04).

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo B. Tentoni whose telephone number is (571) 272-1209. The examiner can normally be reached on Monday - Friday (6:30 A.M. - 3:00 P.M.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo B. Tentoni

Primary Examiner

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